

REMARKS

Claims 1, 3, 5-7, 10, 11, 13-21, 23-31, 34-38 and 41-44 are pending in this application. By this Amendment, claims 1, 10, 41 and 42 are amended. Support for the amendments may be found, for example, in the specification at paragraphs [0046]-[0047], [0054] and [0073]-[0075]. No new matter is added.

The courtesies extended to Applicants' representative by Examiners Salvitti and Heincer at the interview held on February 17, 2011, are appreciated. The reasons presented at the interview as warranting favorable action are incorporated into the remarks below, which constitute Applicants' separate record of the interview.

In view of the foregoing amendments and following remarks, reconsideration and allowance of the claims are respectfully requested.

I. Rejection Under 35 U.S.C. §112

The Office Action rejects claims 1, 3, 5-7, 10, 11, 13-16, 21, 23, 30, 31, 34-38 and 41-44 under 35 U.S.C. §112, first paragraph. Applicants respectfully traverse the rejection.

Without conceding the propriety of the rejection, claims 1 and 10 are amended in accordance with the Examiners' helpful suggestion made during the personal interview. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

II. Rejections Under 35 U.S.C. §103

A. Patel and Wang

The Office Action rejects claims 1, 3, 5-7, 10, 11, 13-16, 21, 23, 30, 31, 34-38 and 41-44 under 35 U.S.C. §103(a) over U.S. Patent No. 6,210,853 to Patel et al. ("Patel") in view of U.S. Patent Application Publication No. 2002/0107306 to Wang et al. ("Wang"). Applicants respectfully traverse the rejection.

Claim 1 recites, *inter alia*:

An emulsion aggregation process for forming curable powder, comprising:
a) mixing curable resin particles comprising an epoxy resin and an aggregating agent in an aqueous dispersion, the aqueous dispersion comprising an anionic surfactant....

(Emphasis added). Claim 10 recites similar features. Patel and Wang, individually or in combination, would not have rendered obvious at least the above features of claims 1 and 10.

The Office Action asserts that Patel “teaches an emulsion process for forming a curable powder/toner comprising in an aqueous dispersion/latex, mixing resin particles and a coagulant/aggregating agent, aggregating particles by heating at a temperature below the Tg of the resin, coalescing by heating at a temperature above the Tg of the resin, and removing/isolating the particles/toner.” Office Action, page 3 (citations omitted).

The Office Action acknowledges that “Patel does not teach the resin is epoxy or the curing agent is the elected polyfunctional amine, nor a curing agent is added after coalescing.” Office Action, page 4. The Office Action relies on Wang to overcome the discrepancies of Patel. The Office Action asserts that “Wang teaches making epoxy particles in an aqueous dispersion with an amino functional groups [sic] on a reactive cross linker added after coalescing.” *Id.* (citations omitted).

Further, the Office Action asserts that “at the time of the invention a person having ordinary skill in the art would have found it obvious to substitute the epoxy-amine latex particles of Wang for the latex particles in the process of Patel and would have been motivated to do so since epoxy particles make protective powder coatings that resist stains.” *Id.* Applicants respectfully disagree.

The Office Action’s motivation for combining the applied references is unsound. Patel is directed to “a process for preparation of toner ... by emulsion polymerization.” Patel, Abstract. Wang is directed to “a method of making an aqueous dispersion of particles

comprising epoxy-functional and acid-functional materials for use in coating composition.”

Wang, paragraph [0009]. However, the method disclosed in Wang is not an emulsion aggregation process. There is no reason or rationale provided in Patel, Wang, or the Office Action that would have lead one of ordinary skill in the art to have known that epoxy resins can or should be used in an emulsion aggregation process with any reasonable expectation of success.

To establish a proper motivation to combine references, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness. *See KSR International Co. v. Teleflex Inc.*, 550 U.S. 398 (2007). In other words, there must be some articulated reasoning to show how using latex particles in the emulsion aggregation of Patel, would have motivated one having ordinary skill in the art to have combined the emulsion aggregation process of Patel with the epoxy resins of Wang.

The Office Action merely alleges that because the epoxy particles of Wang may provide stain resistance, it would have been obvious to have substituted the epoxy particles of Wang for the latex particles of Patel. *See* Office Action, page 4. However, the Office Action’s assertion for one of ordinary skill in the art to have had a motivation to have combined the applied references is insufficient. In particular, just the because the epoxy particles of Wang allegedly resist stains, does not provide sufficient reasoning why one of ordinary skill in the art would or should have combined the epoxy resins with the emulsion aggregation toner preparation processes of Patel with any likelihood of successfully achieving the claimed subject matter. Put differently, merely because epoxy resins might resist stains, this does not provide any reason or rationale as to why one of ordinary skill in the art would have thought it would be possible or desirable to make epoxy resins by emulsion aggregation.

Additionally, as discussed in the personal interview, Patel discloses a surfactant free latex. *See* Patel, col. 1, lines 30-32. Specifically, Patel “relates to a surfactant free toner

process wherein the process involves the preparation of an [sic] latex emulsion preferably containing submicron resin particles suspended in an aqueous phase which is surfactant free.” Patel, col. 1, lines 33-38. Nowhere, does Patel disclose the use of anionic surfactants in an emulsion aggregation, as recited in claims 1 and 10. Furthermore, Wang discloses that the use of surfactants is optional and that such use should be limited due to potential problems in the formation of stable dispersions. *See* Wang, paragraph [0019]. Thus, the combination of Patel and Wang would have lead one of ordinary skill in the art to refrain from using surfactants altogether, let alone anionic surfactants. For this additional reason, one of ordinary skill in the art would not have combined the teachings of Patel and Wang to include anionic surfactants in emulsion aggregation, as recited in claims 1 and 10.

Therefore, at least because the Office Action does not provide any articulated reasoning for substituting the epoxy-amine latex particles of Wang for the latex particles in the process of Patel or utilizing anionic surfactants in emulsion aggregation, its rejection of claims 1 and 10 is improper.

For at least the reasons presented above, Patel and Wang, individually or in combination, would not have rendered claim 1 and 10 obvious. The remaining claims variously depend from claims 1 and 10 and likewise would not have been rendered obvious. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

B. Veregin and Wang

The Office Action rejects claims 1, 3, 5-7, 10, 11, 13-16, 21, 23, 30, 31, 34-38 and 41-44 under 35 U.S.C. §103(a) over U.S. Patent No. 5,622,806 to Veregin et al. (“Veregin”) in view of Wang. Applicants respectfully traverse the rejection.

The Office Action asserts that Veregin “teaches an emulsion aggregation process for forming curable powder compositions.” Office Action, page 7 (citation omitted). The Office Action further asserts that Veregin teaches “mixing curable resin particles and an aggregating

agent (ionic surfactant) in an aqueous dispersion comprising a surfactant; heating the dispersion to a temperature at or above the glass transition temperature of the resin ... the coalesced particles are removed from the dispersion.” *Id.* (citations omitted).

As with Patel, the Office Action acknowledges that “Veregin does not teach the resin is epoxy or the curing agent is the elected polyfunctional amine, nor a curing agent is added to the dispersion.” *Id.* The Office Action relies on Wang to overcome the discrepancies in Veregin. The Office Action applies Wang in the same manner as discussed above, and the Office Action makes the same assertions regarding the reason or rationale to have combined Veregin and Wang. Thus, the arguments presented above to traverse the rejection under 35 U.S.C. §103(a) over Patel and Wang are incorporated herein.

For at least the reasons discussed above regarding Patel and Wang, it would also not have been obvious to have combined Veregin and Wang to yield the features recited in claims 1 and 10. Therefore, Veregin and Wang also would not have rendered obvious claims 1 and 10. The remaining claims variously depend from claims 1 and 10 and likewise would not have been rendered obvious. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

C. Claim 16

Claim 16 depends from claim 10. For at least the reasons stated above, claim 10 would not have been rendered obvious over the applied references. Thus, claim 16 also would not have been rendered obvious over the applied references based at least on its dependence from claim 10, as well as for the additional reasons discussed below.

Claim 16 recites, “The powder of claim 15, wherein the powder particles have a volume average diameter of less than or equal to about 30 microns.”

The Office Action asserts that “Patel teach [sic] the particles obtained have a volume average diameter of 3-10 microns.” Office Action, page 6. The Office Action also asserts

that Veregin “teaches the particles obtained have a volume average diameter of 1-7 microns.”
Office Action, page 9.

Patel is directed to the “preparation of toner including ... emulsion polymerization in the presence of an initiator a first resin latex.” Patel, Abstract. Veregin is directed toward a toner aggregation process “for the preparation of toner with an average particle diameter of from between about 1 to about 50 microns, and preferably from about 1 to about 7 microns.” Veregin, col. 5, lines 42-49.

As discussed above, the Office Action acknowledges that both Patel and Veregin do not disclose an epoxy resin. Additionally, the Office Action conclusively asserts that because both Patel and Veregin allegedly discloses particle sizes within the boundaries of claim 16, the epoxy resin of claim 16 is thus rendered obvious. However, the fact that both Patel and Veregin do not disclose an epoxy resin suggests that it would not have been obvious to produce epoxy particles via emulsion aggregation to achieve an average diameter of up to 30 microns, as recited in claim 16. Further, nowhere does Patel or Veregin, individually or in combination, provide any articulated reason for one of ordinary skill in the art to have expected that epoxy resins can or should be produced by an emulsion aggregation process with any reasonable expectation of success, or that forming epoxy particles by emulsion aggregation would have yielded particles with the same size as the non-epoxy particles disclosed in Patel and Veregin.

Therefore, for at least these additional reasons stated above, Patel and Veregin, individually or in combination, would not have rendered claim 16 obvious. Accordingly, reconsideration and withdrawal of the rejection as to claim 16 are respectfully requested.

III. Conclusion

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of the claims are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



James A. Oliff
Registration No. 27,075

Aborn C. Chao
Registration No. 66,538

JAO:ACC/mkg

Date: March 1, 2011

OLIFF & BERRIDGE, PLC
P.O. Box 320850
Alexandria, Virginia 22320-4850
Telephone: (703) 836-6400

<p>DEPOSIT ACCOUNT USE AUTHORIZATION Please grant any extension necessary for entry of this filing; Charge any fee due to our Deposit Account No. 24-0037</p>
